

ABSTRACT OF THE DISCLOSURE

In a deposited-film formation method or apparatus according to the present invention, which comprises providing a discharge electrode in a vacuum vessel equipped with exhaust means, supplying a hydrogen gas and a raw material gas for forming a deposited film which contains at least an Si element, generating plasma from the material gas by supplying high frequency electric power to the discharge electrode, and forming a deposited film on a substrate in the vacuum vessel by plasma CVD, wherein an auxiliary electrode is arranged in plasma in the vacuum vessel, a periodically changing voltage is applied to the auxiliary electrode without causing a discharge to form a deposited film, whereby it is possible to form an amorphous-silicon-based deposited film having good quality and good uniformity over a large area at a high rate of film formation.

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